

LOW TEMPERATURE PACKAGING APPARATUS AND METHOD

ABSTRACT

Some embodiments disclose a low temperature semiconductor packaging apparatus and method. An apparatus generally comprises a heat spreader, a silicon die, and a thermal interface material disposed between the heat spreader and the silicon die comprising a plurality of metals capable of forming a transient liquid phase bond. A method generally comprises attaching a silicon die to a substrate, depositing a thermal interface material on at least one of the silicon die and a heat spreader, and attaching the heat spreader to the silicon die, wherein the thermal interface material comprises a plurality of metals capable of forming a transient liquid phase bond. Other embodiments are also described and claimed.